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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of the claims in the application.

Listing of Claims

1. (Currently Amended) A composition comprising:
an electroprocessed material and a substance,
wherein the electroprocessed material is one or more natural materials, one or more synthetic materials, or a combination thereof; and,
wherein the one or more natural materials is selected from the group consisting of amino acids, peptides, denatured peptides, polypeptides, proteins, carbohydrates, lipids, nucleic acids, glycoproteins, lipoproteins, glycolipids, glycosaminoglycans, proteoglycans, and a combination thereof; and,
wherein the one or more synthetic materials comprises one or more polymers;
and,
wherein the substance comprises a therapeutic substance, a cosmetic substance or a combination thereof.
- 2-4. (Cancelled).
5. (Withdrawn) The composition of Claim 2, wherein the synthetic material comprises one or more polymers.
6. (Currently Amended) The composition of Claim 1, wherein the therapeutic substance comprises a therapeutic substance, a cosmetic substance or a combination thereof; is selected from the group consisting of anesthetics, hypnotics, sedatives, sleep inducers, antipsychotics, antidepressants, antiallergics, antianginals, antiarthritics, antiasthmatics,

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antidiabetics, antidiarrheal drugs, anticonvulsants, antigout drugs, antihistamines, antipruritics, emetics, antiemetics, antispasmodics, appetite suppressants, neuroactive substances, neurotransmitter agonists, antagonists, receptor blockers, reuptake modulators, beta-adrenergic blockers, calcium channel blockers, disulfiram, muscle relaxants, analgesics, antipyretics, stimulants, anticholinesterase agents, parasympathomimetic agents, hormones, anticoagulants, antithrombotics, thrombolytics, immunoglobulins, immunosuppressants, hormone agonists, hormone antagonists, vitamins, antimicrobial agents, antineoplastics, antacids, digestants, laxatives, cathartics, antiseptics, diuretics, disinfectants, fungicides, ectoparasitocides, antiparasitics, heavy metals, heavy metal antagonists, chelating agents, alkaloids, salts, ions, autacoids, digitalis, cardiac glycosides, antiarrhythmics, antihypertensives, vasodilators, vasoconstrictors, antimuscarinics, ganglionic stimulating agents, ganglionic blocking agents, neuromuscular blocking agents, adrenergic nerve inhibitors, anti-oxidants, anti-inflammatories, wound care products, antithrombogenic agents, antitumoral agents, antithrombogenic agents, antiangiogenic agents, antigenic agents, wound healing agents, plant extracts, growth factors, growth hormones, cytokines, immunoglobulins, osteoblasts, myoblasts, neuroblasts, fibroblasts, glioblasts; germ cells, hepatocytes, chondrocytes, keratinocytes, smooth muscle cells, cardiac muscle cells, connective tissue cells, epithelial cells, endothelial cells, hormone-secreting cells, neurons, emollients, humectants, anti-rejection drugs, spermicides, conditioners, antibacterial agents, antifungal agents, antiviral agents, antibiotics, tranquilizers, cholesterol-reducing drugs, antitussives, histamine-blocking drugs and monoamine oxidase inhibitor.

7-8. (Cancelled).

9. (Previously Presented) The composition of Claim 1, wherein the electroprocessed material is crosslinked.

10-23. (Cancelled).

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24. (New) The composition of Claim 1, wherein the synthetic material comprises one or more polymers selected from the group consisting of poly(urethanes), poly(siloxanes), silicones, poly(ethylene), poly(vinyl pyrrolidone), poly(2-hydroxy ethyl methacrylate), poly(N-vinyl pyrrolidone), poly(methyl methacrylate), poly(vinyl alcohol), poly(acrylic acid), polyacrylamide, poly(ethylene-co-vinyl acetate), poly(ethylene glycol), poly(methacrylic acid), polylactides (PLA), polyglycolides (PGA), poly(lactide-co-glycolides) (PLGA), polyanhydrides and polyorthoesters.

25. (New) A composition comprising an electroprocessed material and a substance,

wherein the electroprocessed material comprises a combination of one or more natural materials and one or more synthetic materials; and,

wherein the one or more natural materials is selected from the group consisting of amino acids, peptides, denatured peptides, polypeptides, proteins, carbohydrates, lipids, nucleic acids, glycoproteins, lipoproteins, glycolipids, glycosaminoglycans, proteoglycans, and a combination thereof; and

wherein the one or more synthetic materials comprises one or more polymers.

26. (New) The composition of Claim 25, wherein the electroprocessed material comprises a combination of a protein and one or more polymers, and

wherein the one or more polymer is selected from the group consisting of poly(urethanes), poly(siloxanes), silicones, poly(ethylene), poly(vinyl pyrrolidone), poly(2-hydroxy ethyl methacrylate), poly(N-vinyl pyrrolidone), poly(methyl methacrylate), poly(vinyl alcohol), poly(acrylic acid), polyacrylamide, poly(ethylene-co-vinyl acetate), poly(ethylene glycol), poly(methacrylic acid), polylactides (PLA), polyglycolides (PGA), poly(lactide-co-glycolides) (PLGA), polyanhydrides and polyorthoesters.

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27. (New) The composition of Claim 26, wherein the protein is selected from the group consisting of extracellular matrix proteins, collagen, fibrin, fibrinogen, thrombin, elastin, laminin and fibronectin.

28. (New) The composition of Claim 27, wherein the electroprocessed material comprises a combination of collagen and one or more polymers.

29. (New) The composition of Claim 27, wherein the electroprocessed material comprises a combination of one or more collagen types and one or more polymers.

30. (New) The composition of Claim 25, further comprising one or more molecules, cells, objects or combinations thereof.

31. (New) The composition of Claim 25, further comprising a therapeutic substance, a cosmetic substance or a combination thereof.

32. (New) The composition of Claim 31, wherein the therapeutic substance is selected from the group consisting of anesthetics, hypnotics, sedatives, sleep inducers, antipsychotics, antidepressants, antiallergics, antianginals, antiarthritics, antiasthmatics, antidiabetics, antidiarrheal drugs, anticonvulsants, antigout drugs, antihistamines, antipruritics, emetics, antiemetics, antispasmodics, appetite suppressants, neuroactive substances, neurotransmitter agonists, antagonists, receptor blockers, reuptake modulators, beta-adrenergic blockers, calcium channel blockers, disulfiram, muscle relaxants, analgesics, antipyretics, stimulants, anticholinesterase agents, parasympathomimetic agents, hormones, anticoagulants, antithrombotics, thrombolytics, immunoglobulins, immunosuppressants, hormone agonists, hormone antagonists, vitamins, antimicrobial agents, antineoplastics, antacids, digestants, laxatives, cathartics, antiseptics, diuretics, disinfectants, fungicides, ectoparasitocides, antiparasitics, heavy metals, heavy metal antagonists, chelating agents,

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alkaloids, salts, ions, autacoids, digitalis, cardiac glycosides, antiarrhythmics, antihypertensives, vasodilators, vasoconstrictors, antimuscarinics, ganglionic stimulating agents, ganglionic blocking agents, neuromuscular blocking agents, adrenergic nerve inhibitors, anti-oxidants, anti-inflammatories, wound care products, antithrombogenic agents, antitumoral agents, antithrombogenic agents, antiangiogenic agents, antigenic agents, wound healing agents, plant extracts, growth factors, growth hormones, cytokines, immunoglobulins, osteoblasts, myoblasts, neuroblasts, fibroblasts, glioblasts; germ cells, hepatocytes, chondrocytes, keratinocytes, smooth muscle cells, cardiac muscle cells, connective tissue cells, epithelial cells, endothelial cells, hormone-secreting cells, neurons, emollients, humectants, anti-rejection drugs, spermicides, conditioners, antibacterial agents, antifungal agents, antiviral agents, antibiotics, tranquilizers, cholesterol-reducing drugs, antitussives, histamine-blocking drugs and monoamine oxidase inhibitor.

33. (New) A composition comprising an electroprocessed material and a substance; wherein the electroprocessed material comprises one or more types of collagen fibers and a polymer;

wherein the electroprocessed collagen fibers comprise a repeated banding pattern, wherein the repeated banding pattern occurs at a spacing of about 65 nm to 67 nm; and,

wherein the substance comprises a therapeutic substance, a cosmetic substance or a combination thereof.

34. (New) The composition of Claim 33, wherein the substance is selected from the group consisting of hormones, growth factors, growth hormones, cytokines, immunoglobulins, osteoblasts, keratinocytes, cardiac muscle cells, hormone-secreting cells, antibacterial agents and antibiotics.

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35. (New) The composition of Claim 33, wherein the electroprocessed collagen comprises electrospun collagen.